

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A nucleic acid molecule comprising sequences encoding the pre-membrane and envelope proteins of West Nile virus and the capsid and non-structural proteins of Yellow Fever virus, wherein said ~~pre-membrane or~~ envelope protein comprises an attenuating mutation in a region selected from the group consisting of: amino acids 102-112, amino acids 311-321, and amino acids 435-445.
2. (Original) The nucleic acid molecule of claim 1, wherein said attenuating mutation comprises an amino acid substitution at a position selected from the group consisting of positions 107, 316, and 440 of the envelope protein.
3. (Original) The nucleic acid molecule of claim 2, wherein said amino acid substitution is in position 107.
4. (Original) The nucleic acid molecule of claim 2, wherein said amino acid substitution is in position 316 and position 440.
5. (Original) The nucleic acid molecule of claim 2, wherein said amino acid substitution is in amino acid positions 107, 316, and 440.
6. (Currently Amended) The nucleic acid molecule of claim 2, wherein said amino acid substitution at position 107 is leucine to phenylalanine, or a conservative amino acid of

phenylalanine thereof.

7. (Currently Amended) The nucleic acid molecule of claim 2, wherein said amino acid substitution at position 316 is alanine to valine, or a conservative amino acid of valine thereof.

8. (Currently Amended) The nucleic acid molecule of claim 2, wherein said amino acid substitution at position 440 is lysine to arginine, or a conservative amino acid of arginine thereof.

9. (Original) A chimeric flavivirus encoded by the nucleic acid molecule of claim 1.

10. (Original) A method of inducing an immune response to West Nile virus in a subject, said method comprising administering to the subject the chimeric flavivirus of claim 9.

11. (Original) The method of claim 10, wherein said subject is at risk of developing, but does not have, West Nile virus infection.

12. (Original) The method of claim 10, wherein said subject is infected with West Nile virus.

13. (Original) A method of making a chimeric flavivirus vaccine, comprising introducing the nucleic acid molecule of claim 1 into cells.

14. (Canceled).

15. (New) The nucleic acid molecule of claim 1, wherein said nucleic acid molecule comprises the genome of a chimeric flavivirus comprising the pre-membrane and envelope proteins of West Nile virus and the capsid and non-structural proteins of Yellow Fever virus or the complement thereof.

16. (New) The chimeric flavivirus of claim 9, wherein said attenuating mutation comprises an amino acid substitution at a position selected from the group consisting of positions 107, 316, and 440 of the envelope protein.

17. (New) The chimeric flavivirus of claim 16, wherein said amino acid substitution is in position 107.

18. (New) The chimeric flavivirus of claim 16, wherein said amino acid substitution is in position 316 and position 440.

19. (New) The chimeric flavivirus of claim 16, wherein said amino acid substitution is in amino acid positions 107, 316, and 440.

20. (New) The chimeric flavivirus of claim 16, wherein said amino acid substitution at position 107 is leucine to phenylalanine, or a conservative amino acid of phenylalanine.

21. (New) The chimeric flavivirus of claim 16, wherein said amino acid substitution at position 316 is alanine to valine, or a conservative amino acid of valine.

22. (New) The chimeric flavivirus of claim 16, wherein said amino acid substitution at position 440 is lysine to arginine, or a conservative amino acid of arginine.

23. (New) The method of claim 10, wherein said attenuating mutation comprises an amino acid substitution at a position selected from the group consisting of positions 107, 316, and 440 of the envelope protein.

24. (New) The method of claim 23, wherein said amino acid substitution is in position 107.

25. (New) The method of claim 23, wherein said amino acid substitution is in position 316 and position 440.

26. (New) The method of claim 23, wherein said amino acid substitution is in amino acid positions 107, 316, and 440.

27. (New) The method of claim 23, wherein said amino acid substitution at position 107 is leucine to phenylalanine, or a conservative amino acid of phenylalanine.

28. (New) The method of claim 23, wherein said amino acid substitution at position 316 is alanine to valine, or a conservative amino acid of valine.

29. (New) The method of claim 23, wherein said amino acid substitution at position 440 is lysine to arginine, or a conservative amino acid of arginine.

30. (New) The method of claim 13, wherein said attenuating mutation comprises an amino acid substitution at a position selected from the group consisting of positions 107, 316, and 440 of the envelope protein.

31. (New) The method of claim 30, wherein said amino acid substitution is in position 107.

32. (New) The method of claim 30, wherein said amino acid substitution is in position 316 and position 440.

33. (New) The method of claim 30, wherein said amino acid substitution is in amino acid positions 107, 316, and 440.

34. (New) The method of claim 30, wherein said amino acid substitution at position 107 is leucine to phenylalanine, or a conservative amino acid of phenylalanine.

35. (New) The method of claim 30, wherein said amino acid substitution at position 316 is alanine to valine, or a conservative amino acid of valine.

36. (New) The method of claim 30, wherein said amino acid substitution at position 440 is lysine to arginine, or a conservative amino acid of arginine.

37. (New) A vaccine composition comprising the flavivirus of claim 9.

38. (New) The vaccine composition of claim 37, wherein said attenuating mutation comprises an amino acid substitution at a position selected from the group consisting of positions 107, 316, and 440 of the envelope protein.

39. (New) The vaccine composition of claim 38, wherein said amino acid substitution is in position 107.

40. (New) The vaccine composition of claim 38, wherein said amino acid substitution is in position 316 and position 440.

41. (New) The vaccine composition of claim 38, wherein said amino acid substitution is in amino acid positions 107, 316, and 440.

42. (New) The vaccine composition of claim 38, wherein said amino acid substitution at position 107 is leucine to phenylalanine, or a conservative amino acid of phenylalanine.

43. (New) The vaccine composition of claim 38, wherein said amino acid substitution at position 316 is alanine to valine, or a conservative amino acid of valine.

44. (New) The vaccine composition of claim 38, wherein said amino acid substitution at position 440 is lysine to arginine, or a conservative amino acid of arginine.